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PROJECT NO. 51840

**RULEMAKING ESTABLISHING ELECTRIC
WEATHERIZATION STANDARDS**

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**PUBLIC UTILITY COMMISSION

OF TEXAS**

COMMENTS OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC

CenterPoint Energy Houston Electric, LLC (“CenterPoint Energy” or the “Company”) is a transmission service provider (“TSP”) in the ERCOT power region and submits these comments in response to the Commission’s August 26, 2021 Proposal for Publication of a new rule to be codified at 16 Tex. Admin. Code (TAC) § 25.55. An Executive Summary of these comments is attached. The proposed new rule, which the Commission is calling phase one of its plan to develop “robust weather emergency preparedness reliability standards,” would apply only during the 2021-22 winter season. As stated in the Proposal for Publication, phase one’s “primary objective . . . is to ensure that the electric industry is prepared to provide continuous reliable electric service throughout this upcoming winter season.” The Commission intends to initiate “phase two” of its plan to adopt more comprehensive weather emergency preparedness reliability standards that would succeed the phase one standards and apply “year-around” in a future project. The Commission is conducting this phase one rulemaking project and the future phase two project to carry out the legislative directives adopted in 2021 and codified at PURA §§ 35.0021 and 38.075 for the Commission to promulgate weather emergency preparedness standards for the electric industry.

Given the time constraints to quickly develop these standards for implementation before the start of the upcoming winter season, the Commission’s proposed phase one rule wisely utilizes the recommendations contained in the August 2011 Report on Outages and Curtailments During the Southwest Cold Weather Event of February 1-5, 2011 (the “2011 Report”), prepared by the staffs of FERC and NERC, as the basis for the proposed phase one standards to be applicable to TSPs. The recommendations in the 2011 Report were the result of a comprehensive review of the last major cold

weather event in the ERCOT power region prior to 2021 that necessitated the shedding of firm load. The February 2011 and February 2021 weather conditions shared many similarities during their respective event periods. The Company concurs with the Commission that the recommendations contained in the 2011 Report pertaining specifically to “Transmission Operators” and “Transmission Facilities” provide a firm basis for adopting TSP weatherization standards that can be timely instituted before the start of upcoming winter season.¹

Subsection (b) Definitions

CenterPoint Energy has only one recommendation regarding the proposed defined terms in subsection (b). The term “cold weather critical component” is defined as “Any component that is susceptible to freezing, the occurrence of which is likely to lead to a unit trip, derate, or failure to start.” The Company recommends inserting the words “a resource,” which is defined in subsection (b) to include both a generation resource and an energy storage resource, in front of the word “unit” in that definition. The Company’s recommended change in subsection (b) is shown as follows:

- (1) **Cold weather critical component** – Any component that is susceptible to freezing, the occurrence of which is likely to lead to a resource unit trip, derate, or failure to start.

Subsection (f) Weather emergency preparedness reliability standards for a transmission service provider

CenterPoint Energy recommends the following changes to the provisions in subsection (f) of the proposed rule applicable to TSPs.

A. Subsection (f)(1) TSP Standards

Subsection (f)(1) of the proposed new rule lists the winter weather preparedness standards or requirements that would be applicable to TSPs in the ERCOT power region for the 2021-22 winter season.

¹ The 2011 Report sometimes uses the term “Transmission Operators” or “Transmission Owners” to refer to TSPs in ERCOT. See, e.g., 2011 Report at 86, n.125.

Whereas the 2011 Report contains only four separate weatherization recommendations specifically for TSP transmission facilities, subsection (f)(1) proposes a total of eight separate weatherization requirements for TSP transmission facilities. The only subsection (f)(1) proposed requirements that track with the 2011 Report's recommendations are the proposed requirements listed in paragraphs (D), (E), (F), and (G). The proposed requirements listed in paragraphs (A), (B), (C), and (H) of subsection (f)(1) are not recommendations made by the 2011 Report.

The 2011 Report found that "some transmission breaker outages did lead to the loss of generating units" during the 2011 winter event, and that "[m]any breaker trips were the result of low air in the breaker, low sulfur hexa-fluoride (SF₆) gas pressure, failed or inadequate heaters, bad contacts, and gas leaks."² As a result of these findings, the 2011 Report recommended the following three specific activities that TSPs should undertake to prepare for the winter season:³

- "[E]nsure that the SF₆ gas in breakers and metering and other electrical equipment is at the correct pressure and temperature to operate safely during extreme cold, and also perform annual maintenance that tests SF₆ breaker heaters and supporting circuitry to assure that they are functional."⁴
- "[M]aintain the operation of power transformers in cold temperatures by checking heaters in the control cabinets, verifying that main tank oil levels are appropriate for the actual oil temperature, checking bushing oil levels, and checking the nitrogen pressure if necessary."⁵

² 2011 Report at 209.

³ *See id.*

⁴ This 2011 Report recommendation is contained in subsection (f)(1)(E) of the proposed rule.

⁵ This 2011 Report recommendation is contained in subsection (f)(1)(F) of the proposed rule.

- “[D]etermine the ambient temperature to which their equipment, including fire protection systems, is protected (taking into account the accelerated cooling effect of wind), and ensure that temperature requirements are met during operations.”⁶

The 2011 Report also recommended that TSPs “should train operators in proper load shedding procedures and conduct periodic drills to maintain their load shedding skills.”⁷

Together, these four recommendations in the 2011 Report contain clear standards for TSPs to meet by December 1, 2021 for purposes of preparing for the upcoming winter season and, including paragraph (C) of subsection (f)(1), should be the only TSP emergency weather preparedness standards included in the proposed rule to adopt phase one standards, which the Commission states are intended to apply only for the upcoming winter season. The additional standards in the Commission’s proposed rule (paragraphs (A), (B), and (H)) are too vague and ambiguous for such quick implementation. The adoption of additional emergency weather preparedness requirements beyond the recommendations contained in the 2011 Report and the requirement in paragraph (C) should only occur in the context of the future phase two rulemaking project envisioned by the Commission, which will not of necessity be bound by phase one’s compressed time schedule, and which will afford the Commission and interested parties more time to develop appropriate and reasonable longer-term standards.

Consistent with the above comments, CenterPoint Energy urges the Commission to make the following changes to subsection (f)(1) of its proposed new rule to conform the rule’s weather emergency preparedness standards for the upcoming winter season to the recommendations for TSPs contained in the 2011 Report, plus other minor clarifications:

⁶ This 2011 Report recommendation is contained in subsection (f)(1)(G) of the proposed rule.

⁷ 2011 Report at 212 (finding that, during the 2011 winter event, one TSP “experienced delay in executing its load shedding because the individual operators had never shed load before and had not had recent drills. These incidents underscore the necessity of adequate training in load shedding procedures”). This 2011 Report recommendation would fall under the broader language in subsection (f)(1)(D) of the proposed rule, which would require TSPs to provide “training on winter weather preparations to operational personnel.”

- (1) By December 1, 2021, a transmission service provider must complete the following winter weather preparations for its transmission systems and facilities:
- ~~(A)~~ ~~All preparations necessary to ensure the sustained operation of all cold weather critical components during winter weather conditions, including ensuring availability of supplies, such as chemicals, auxiliary fuels, and other materials, and personnel required to operate the transmission system and facilities;~~
 - ~~(B)~~ ~~Confirmation of the ability of all systems and subsystems containing cold weather critical components required to operate each of the transmission service provider's substations to ensure operation of each substation within the design and operating limitations addressed in subparagraph (1)(H) of this paragraph;~~
 - ~~(C)~~ A All reasonable and prudent actions necessary to prevent a reoccurrence of any failure to a cold weather critical component failure owned or operated by the transmission service provider that occurred in the period between November 30, 2020 and March 1, 2021 that were cold weather related;
 - ~~(D)~~ B ~~Provision of~~ Provide training on winter weather preparations including load shedding procedures to operational personnel;
 - ~~(E)~~ C ~~Confirmation~~ Confirm that the sulfur hexafluoride gas in breakers and metering and other electrical equipment is at the correct pressure and temperature to operate safely during extreme cold weather, and ~~performance of annual maintenance that tests~~ conduct testing of sulfur hexafluoride breaker heaters ~~by and~~ supporting circuitry to assure that they are functional;
 - ~~(F)~~ D ~~Confirmation of the operability of~~ Confirm that power transformers and auto transformers are prepared to operate in ~~extreme~~ cold temperatures by:
 - (i) Checking heaters in the control cabinets;
 - (ii) Verifying that main tank oil levels are appropriate for actual oil temperature;
 - (iii) Checking bushing oil levels; and
 - (iv) Checking the nitrogen pressure if necessary; and
 - ~~(G)~~ E ~~Determination of~~ Determine the ambient temperature to which the transmission service provider's equipment, such as fire protection systems, are is protected, including accounting for taking into account the accelerated cooling effect of wind, and ~~confirmation~~ ensure that temperature requirements are met during operations; and.
 - ~~(H)~~ ~~Determination of minimum design temperatures, minimum operating temperatures, and other operating limitations based on temperature, precipitation, humidity, wind speed, and wind direction for substations containing cold weather critical components.~~

B. Subsection (f)(4) Good Cause Exception

Subsection (f)(4) of the proposed rule allows a TSP to request a good cause exception to a specific requirement in subsection (f)(1). It does not specify a deadline for a TSP to make such a request and is

somewhat vague as to what the “detailed description and supporting documentation” that a TSP is required to provide along with such a request pertains to. CenterPoint Energy recommends that the Commission make the following changes to subsection (f)(4) to address these concerns:

- (4) Good cause exception. A transmission service provider may ~~submit~~ file a request for a good cause exception with the commission to specific requirements listed in paragraph (1) of this subsection.
 - (A) The request must be filed by December 1, 2021 and include:
 - (i) A detailed explanation and supporting documentation of the inability of the transmission service provider to comply with a specific requirement of paragraph (1) of this subsection;
 - (ii) A detailed description and supporting documentation of the efforts that have been made to comply with ~~paragraph (1) of this subsection~~ the requirement for which the good cause exception is requested;

Subsection (g) Inspections for a transmission service provider

Subsection (g)(2) of the proposed rule would require ERCOT to provide an inspection report to each TSP after ERCOT conducts the inspection called for in subsection (g)(1). The inspection report must identify any violations of subsection (f)(1)’s winter preparation standards found during the inspection, and it requires ERCOT to provide a TSP a reasonable period of time to cure any subsection (f)(1) deficiencies identified in the inspection report.⁸ To determine the reasonable period of time to cure a deficiency, subsection (g)(2) would require ERCOT to consider “what weather emergency preparation measures the transmission service provider may be reasonably expected to have taken before ERCOT’s inspection, the reliability risk of the transmission service provider’s noncompliance, and the complexity of the measures needed to cure the identified deficiencies.”

⁸ Subsection (g) of the proposed rule is intended to implement PURA § 38.075(b), which requires ERCOT to (1) inspect the facilities of TSPs and others in the ERCOT power region for compliance with the weather standards adopted by the Commission under PURA § 38.075(a) (however, the statute does not specify the frequency of such inspections nor even whether they must occur more than once per covered entity), (2) provide the owner of the facilities inspected a “reasonable period of time” to remedy any violation discovered during the inspection, and (3) report any violation not remedied in a reasonable period time to the Commission.

CenterPoint Energy supports the inclusion of those factors to determine a reasonable period of time to cure a deficiency, but they should not be the only factors that ERCOT is permitted to consider. There may be other facts and circumstances that should also be considered in determining what constitutes a reasonable period of time to cure a deficiency,⁹ and the TSP should be given an opportunity to present those other facts and circumstances for ERCOT's consideration prior to its determination of a reasonable period to cure. In fact, due process considerations may even require that there be an evidentiary basis for any reasonable-period-of-time decision made by ERCOT under proposed subsection (g)(2) or directly under PURA § 38.075(b), with an opportunity for the TSP to be heard and to appeal any such decision. A determination of what constitutes a reasonable period of time in a given case made without these due process safeguards would likely be deemed arbitrary and capricious. Based on the foregoing comments, CenterPoint Energy urges the Commission to make the following changes to its proposed subsection (g)(2):

- (2) ERCOT inspection report. ERCOT must provide a report on its inspection of a transmission system and facilities to the transmission service provider. The inspection report must address whether the system and facilities have complied with the requirements in subsection (f) of this section that ERCOT reviewed for the transmission service provider, and, if the transmission service provider has not complied, provide the transmission service provider a reasonable period to cure the identified deficiencies. The reasonable cure period determined by ERCOT must consider all relevant facts and circumstances, including, without limitation, what weather emergency preparation measures the transmission service provider actually took and may be reasonably expected to have taken before ERCOT's inspection, the reliability risk of the transmission service provider's noncompliance in terms of both its likelihood and magnitude, and the complexity and cost of the measures needed to cure the identified deficiencies. The transmission service provider must be afforded an opportunity to be heard and present evidence for consideration in the period to cure determination and to appeal an ERCOT period to cure determination to the commission.

⁹ For example, the cost of compliance or the cost "of the measures needed to cure the identified deficiencies" (not just their complexity) should also be a consideration, and both the likelihood and the magnitude of the reliability risk attributable to the TSP's noncompliance should be factored into the consideration as well.

Subsection (h) Weather-related failures by a transmission service provider to provide service

Subsection (h) of the proposed rule would require a TSP to engage a “qualified professional engineer” to independently assess the TSP’s “weather emergency preparations measures, plans, procedures, and operations” if any “transmission system or facility” of the TSP experiences “repeated or major weather-related forced interruptions of service, including forced outages, derates, or maintenance-related outages.” The TSP would be prohibited from using an employee of the TSP or its affiliate to conduct the assessment even if that employee is an otherwise qualified professional engineer to conduct the assessment or the most qualified professional engineer to conduct it. In addition, the TSP would be prohibited from engaging any otherwise qualified professional engineer to conduct the assessment if the engineer has participated in any previous assessments of the TSPs system or facility at any time in the past, regardless of how long ago the previous assessment occurred.

The Commission’s proposed subsection (h) is impractical and unreasonable on many grounds. The trigger for the requirement to engage an independent engineer to conduct the assessment is vague and ambiguous. Although the proposed subsection (h) delegates responsibility to ERCOT “to adopt rules that specify the circumstances for which this requirement applies,” the Commission provides no intelligible principle to guide ERCOT in exercising the power to be delegated to it.

The rule’s trigger for the assessment is simply and broadly any “repeated or major weather-related forced interruptions of service, including forced outages, derates, or maintenance-related outages” experienced by any TSP “transmission system or facility.” A TSP has but one transmission system. A forced interruption somewhere on the system is bound to occur more than once over the life of the system; thus, the independent assessment requirement would be constantly triggered, because every forced interruption anywhere on the system after the first forced interruption anywhere on the system, even if their causes are completely unrelated, would constitute a “repeated forced interruption” of the TSP’s transmission system. Similarly, for any discrete component or “facility” that is part of the

TSP's transmission system, any forced interruption experienced by that component or facility after the first forced interruption of that component or facility would constitute a "repeated forced interruption" of that component or facility even if the forced interruptions were separated by years or even decades.¹⁰

Even a one-time forced interruption caused by a major weather event would automatically trigger the independent assessment requirement. Every major weather-related forced interruption would trigger the assessment requirement, regardless of whether the weather event was a hurricane, lightning strike, sub-zero temperatures, or any other type of weather event, because it is simply the occurrence of a forced interruption caused by a major weather event that triggers the assessment requirement.

Another concern with the Commission's proposed subsection (h) is that, when the independent assessment requirement is triggered, it prohibits a TSP from engaging a professional engineer who may be the most qualified to perform the assessment not only if the engineer is an employee of the TSP or an affiliate, but also any engineer who has ever "participated in [any] previous assessment" of the TSP system or facility to be assessed.¹¹ This restriction could significantly reduce the pool of qualified professional engineers who would be eligible to conduct the assessment and significantly drive up the price that must be paid to engage a qualified professional engineer to conduct the assessment, and the time and resources that must be expended to even find one or more qualified engineers to engage for the assessment. It will be a seller's market for the likely low numbers of qualified professional engineers that would be eligible for engagement by the TSP to conduct an assessment.

The Commission's proposed subsection (h) also requires the TSP to submit the assessment report produced by the qualified professional engineer¹² directly to the Commission and to ERCOT, but it says

¹⁰ The depreciable life of transmission plant is generally measured in decades.

¹¹ The proposed subsection (h) does not even define the qualifications that a professional engineer must possess to be deemed a "qualified" professional engineer.

¹² The proposed rule again delegates the responsibility to ERCOT to adopt rules specifying "the scope and contents of the assessment."

nothing about the consequences of the assessment or what the Commission or ERCOT must do with it, or whether the TSP would have any right to challenge or present evidence to rebut or support any findings or conclusions in the assessment. Instead, the rule merely states that “ERCOT must refer to the commission for enforcement any [TSP] that violates this rule and fails to cure the identified system or facility deficiencies within a reasonable period of time.” What constitutes a “violation of this rule”? The only possible violation of subsection (h) as it is presently written would be a TSP’s failure to engage a professional engineer who possesses some undefined qualifications and who is not otherwise prohibited from engagement under the rule within a reasonable period of time after the assessment requirement is triggered.

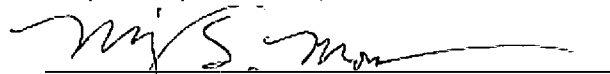
Yet, subsection (h) seems to imply that a violation of subsection (h) would be deemed to occur, and ERCOT must refer the violation to the Commission for enforcement, if the TSP does not cure the “system or facility deficiencies” identified in the independent engineer’s assessment within a reasonable period of time after the assessment report has been submitted to the Commission and ERCOT. And this in turn implies that a TSP is expected to proceed with “curing” the deficiencies identified in the independent engineer’s assessment as soon as it reasonably can even if the Commission has not issued an order finding the assessment reasonable, even if the TSP disagrees with the assessments findings and conclusions, and even if the TSP believes that incurring the costs to “cure” the deficiencies would be unreasonable and imprudent, because there is no opportunity under the proposed rule for the TSP to challenge those findings and conclusions or to provide any other evidence whatsoever. And this further implies that if the TSP proceeds to cure the deficiencies identified in the assessment without a Commission order requiring it to cure those deficiencies or a Commission decision finding that the assessment is reasonable, that the costs incurred by the TSP to cure those deficiencies could be challenged by any party on prudence grounds.

Subsection (h) is not ready for adoption and implementation for the upcoming winter season. CenterPoint Energy recommends striking it entirely from the Commission's phase one proposal. It is not necessary for phase one of the Commission's plan for developing weather emergency preparedness reliability standards that would only be applicable for the upcoming winter season. It is eminently more sensible to address the issues and concerns contained in subsection (h) and raised in these comments during the second phase of the Commission's plan to develop more comprehensive standards and in a project that will not be under the compressed time constraints that this project is under, and where the parties will have more time to develop a more practical and workable framework to address the need and procedures for a TSP independent assessment requirement.

CONCLUSION

CenterPoint Energy appreciates the opportunity to provide these comments. It hopes the Commission finds these comments helpful and looks forward to continuing to participate and help with the development of weather emergency preparedness standards for TSPs in both this phase one project and in the Commission's planned future phase two project.

Respectfully submitted,



Mickey Moon

Assistant General Counsel

State Bar No. 00791291

1111 Louisiana Street

Houston, Texas 77002

mickey.moon@centerpointenergy.com

(713) 207-7231 (office)

(713) 454-7197 (efax)

ATTORNEY FOR CENTERPOINT ENERGY
HOUSTON ELECTRIC, LLC

PROJECT NO. 51840

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EXECUTIVE SUMMARY OF
COMMENTS OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC

- Subsection (b)(1) definition of “cold weather critical component” should be revised as follows for clarity purposes:
 - (1) **Cold weather critical component** – Any component that is susceptible to freezing, the occurrence of which is likely to lead to a resource unit trip, derate, or failure to start.
- Subsection (f)(1) transmission service provider (“TSP”) weather emergency preparedness standards should conform to the TSP recommendations contained in the August 2011 Report on Outages and Curtailments During the Southwest Cold Weather Event of February 1-5, 2011 (the “2011 Report”) prepared by the staffs of FERC and NERC and should not include additional requirements at this time for purposes of phase one of this project (except the proposed subsection (f)(1) requirement for TSPs to complete the actions necessary to prevent a “reoccurrence of any cold weather critical component failure” that occurred last winter should be adopted). Any additional TSP standards or requirements should be considered for adoption in the phase two rulemaking project that the Commission plans to initiate in the future. Subsection (f)(1) should be revised as follows:
 - (1) By December 1, 2021, a transmission service provider must complete the following winter weather preparations for its transmission systems and facilities:
 - (A) ~~All preparations necessary to ensure the sustained operation of all cold weather critical components during winter weather conditions, including ensuring availability of supplies, such as chemicals, auxiliary fuels, and other materials, and personnel required to operate the transmission system and facilities;~~
 - (B) ~~Confirmation of the ability of all systems and subsystems containing cold weather critical components required to operate each of the transmission service provider's substations to ensure operation of each substation within the design and operating limitations addressed in subparagraph (1)(H) of this paragraph;~~
 - (C) All reasonable and prudent actions necessary to prevent a reoccurrence of any failure to a cold weather critical component failure owned or operated by the transmission service provider that occurred in the period between November 30, 2020 and March 1, 2021 that were cold weather related;
 - (D) ~~Provision of~~ Provide training on winter weather preparations including load shedding procedures to operational personnel;

- (~~EC~~) ~~Confirmation~~ Confirm that the sulfur hexafluoride gas in breakers and metering and other electrical equipment is at the correct pressure and temperature to operate safely during extreme cold weather, and ~~performance of annual maintenance that tests~~ conduct testing of sulfur hexafluoride breaker heaters ~~by~~ and supporting circuitry to assure that they are functional;
 - (~~FD~~) ~~Confirmation of the operability of~~ Confirm that power transformers and auto transformers are prepared to operate in extreme cold temperatures by:
 - (i) Checking heaters in the control cabinets;
 - (ii) Verifying that main tank oil levels are appropriate for actual oil temperature;
 - (iii) Checking bushing oil levels; and
 - (iv) Checking the nitrogen pressure if necessary; and
 - (~~GE~~) ~~Determination of~~ Determine the ambient temperature to which the transmission service provider's equipment, such as fire protection systems, ~~are is~~ protected, ~~including accounting for taking into account~~ the accelerated cooling effect of wind, and ~~confirmation~~ ensure that temperature requirements are met during operations; and.
 - (~~H~~) ~~Determination of minimum design temperatures, minimum operating temperatures, and other operating limitations based on temperature, precipitation, humidity, wind speed, and wind direction for substations containing cold weather critical components.~~
- Subsection (f)(4) should be revised as follows for clarity purposes:
 - (4) Good cause exception. A transmission service provider may ~~submit file~~ a request for a good cause exception with the commission to specific requirements listed in paragraph (1) of this subsection.
 - (A) The request must be filed by December 1, 2021 and include:
 - (i) A detailed explanation and supporting documentation of the inability of the transmission service provider to comply with a specific requirement of paragraph (1) of this subsection;
 - (ii) A detailed description and supporting documentation of the efforts that have been made to comply with ~~paragraph (1) of this subsection~~ the requirement for which the good cause exception is requested;
 - Subsection (g)(2) should allow ERCOT to consider other factors in determining what constitutes a reasonable period of time to cure identified deficiencies in ERCOT's inspection reports and provide the TSP with the opportunity to present those factors to ERCOT and to appeal an ERCOT reasonable period of time determination to the Commission. Subsection (g)(2) should be revised as follows:

- (2) ERCOT inspection report. ERCOT must provide a report on its inspection of a transmission system and facilities to the transmission service provider. The inspection report must address whether the system and facilities have complied with the requirements in subsection (f) of this section that ERCOT reviewed for the transmission service provider, and, if the transmission service provider has not complied, provide the transmission service provider a reasonable period to cure the identified deficiencies. The reasonable cure period determined by ERCOT must consider all relevant facts and circumstances, including, without limitation, what weather emergency preparation measures the transmission service provider actually took and may be reasonably expected to have taken before ERCOT's inspection, the reliability risk of the transmission service provider's noncompliance in terms of both its likelihood and magnitude, and the complexity and cost of the measures needed to cure the identified deficiencies. The transmission service provider must be afforded an opportunity to be heard and present evidence for consideration in the period to cure determination and to appeal an ERCOT period to cure determination to the commission.
- Subsection (h) should be omitted from this phase 1 project and instead addressed in the Commission's planned phase 2 project.